

## Gender Roles and Profitabilities among SweetPotato Farmers in Anambra State, Nigeria

Udemezue Joseph Chidozie

National Roots Crops Research Institute, Umudike, PMB7006 Umudike Abia State, NIGERIA  
[udemezuej@gmail.com](mailto:udemezuej@gmail.com)

### ABSTRACT:

The study examined the gender roles and profitabilities among sweetpotato farmers in Anambra state, Nigeria. Multistage sampling techniques were used for this study. Two local governments out of the 21 local governments in the state were selected. Four communities each from a local government were selected. 15 farmers were selected from each community using simple random techniques and this gave a total sample size of 120 farmers. Data were collected through a structured interview schedule. Data collected for this research were analyzed using frequency, percentage, gross margin analysis, mean score and standard deviation. Results show that 50% of the farmers were married while 25% of farmers were single. The average mean age of the farmers was 35yrs and the average mean household size was 6. Majority(79.17%)of the farmers acquired land by inheritance while the average farm size cultivated for sweetpotato by the farmers was 0.3ha. males were more involved in sweetpotato farming activities such as land clearing, land preparation and ridge making while females were actively involved in sweetpotato farming like planting,weeding,harvesting and marketing.The average amount spent on sweetpotato Production and marketing was N3,000 while the average income from sweet-potato was N5,200 respectively. Bad road network with a weighted mean score 2.75, pest/disease infestation with a weighted mean score 2.63, poor marketing structure with a weighted mean score 2.44, lack of access to extension services with a weighted mean score 2.41, time of planting with a weighted mean score of 2.30 and cost of transport with a weighed mea score of 2.27 were perceived as the major constraints by the farmers.

**Keywords:** Gender, roles, sweetpotato

### INTRODUCTION

Sweet-potato (*Ipomoea batatas*) is a staple food in several tropical countries and also one of the world's highest yielding crops with the total food production per unit area exceeding that of rice [1]. It is among the worlds' most important, versatile, and under exploited food crops with more than 133 millions tones in annual production [2]. Among the root and tuber crops, sweet-potato is the only crop that has positive per capita annual rate of increase in production in sub-sahara Africa [3]. It is a major tuber crop throughout Africa and the pacific region yet it is one of the least marketed.

Sweet-potato is one of the most misunderstandings of the major food crops and is often seen as poor man's food which is grown mainly by women on a small scale plot[3]. Food and Agricultural organization [4] estimate average sweet-potato yield to be 5 to 8thg and are similar with those of state Agricultural development project (ADPs) in

Nigeria which reported yield of popular local varieties from 7t/ha in the South Eastern zones, 3.5t/ha in the northern zones, and 7 to 8t/ha in plateau and Bauchi State [5]. The importance of sweet potato is increasing in Nigeria's farming and systems because it is easy to plant, matures easily and has enormous industrial and economic potentials [6]. Despite its growing importance and known potential as food, animal feed and raw material source, records of sweet potato production processing and marketing in Nigeria's food system are still below the average [7].

Gender participation is a term that describes the roles and activities of men and women according to traditions and beliefs of a particular culture [8]. According to Sinkaiye and Jibowo[9], is a term associated with roles and responsibility of males and females in the society as a social classification of sex. It is the socio-cultural deferences between males and females as against the biological

differences. Therefore gender roles give us an insight into issue affecting women and it is focus mainly on the social and economic structure of a society.

Gender inequality remains a problem that characterized the Nigerian agricultural climate. In Southern part of Nigeria, women do most of farm work and have ownership of the farms while in the Northern part, men do most of the farm work and ownership of farms [8]. Given that gender rules are culture specific, it was observed that in the middle belt region of Nigeria, women make ridges and mounds while in the eastern part of the country that is certainly a job for men [10]. Therefore, gender differences have implications for farming responsibilities as it influences the farming activities performed. In the light of this, it behooved this study to investigate into gender roles and profitabilities among sweet-potato farmers in Anambra State, Nigeria.

The specific objectives are:

- To determine cost and returns on sweet potato production
- Determine the gender rules on sweet-potato production and processing.
- Identify constraints working against sweetpotato production.

## Materials and Methods:

The study area for this research is Anambra State. The State is located in the South east of Nigeria. It is bounded by Delta State to the West, Imo State to the South, Enugu State to the east and Kogi State to the North. It has estimated population of 4,77,828 million people (NPC, 2006) which stretches over about 60kilometers between surrounding community. The state lies on the longitude 6° 35'E and 7°E and latitude of 5° 38'N and 6° 47'E [11]. Anambra State comprises 21 local Governments and is predominantly occupied by Igbo ethnic groups who are farmers by nature.

The target population for this study was all the sweetpotato farmers in the state. Multistage sampling techniques were used for this study. Two

local governments out of 21 local governments in Anambra State were selected due to their popularity in sweetpotato production. Ayamelume local government and Anambra East local government were selected.

In the second stage, four communities each from a local government were selected. Here Omor, Umumbo, Anaku and Umelum in Ayamelum Local Government, Nsugbe, Nando, Igbariam and Umuezi in Anambra East were purposely selected. This gave total of eight(8) communities. Third stage, 15 farmers were selected from each community using simple random techniques and this gave a total sample size of 120 respondents.

## Interview Schedule:

Data were collected through a structured interview schedule. Data collected for the research were analyzed using frequency,percentage, mean score and gross margin analysis.

To determine the cost and returns on sweetpotato production and processing, gross margin analysis was used. Gross margin is the difference between the gross farm income (GI) and the total variable cost (TVC). It is a useful planning tool in a situation where fixed capital is a negligible portion of farming enterprise as in the case of small scale subsistent agriculture.

GM = GI – TVC where GM=gross margin,

GI = Gross income TVC = total variable

$$\text{Cost \% GM} = \frac{GM}{TVC} \times \frac{100}{1}$$

## Results and Discussion:

Table1a shows that 50% of the farmers were married while 25% of the farmers were single. The average mean age was 35. This shows that the farmers still in their active productive years. This result is in line with Olagunju, Fakayode, and Ogunwole-Olapade [8] who found that sweetpotato farmers in Osun State were in their active productive age. The average mean household of the farmers was 5.6.This could increase production and marketing of sweetpotato as more members of the household were engaged into farming activity .About77.5% of the farmers were into trading.

Majority (79.17%) of the farmers acquired land by inheritance and about 66.67% of the farmers cultivated 0.05ha-0.5ha of land. The average farm size cultivated for sweetpotato by the farmers was

0.3ha. This shows that the sweetpotato farmers were still small scale farmers and also paid little attention to sweetpotato production as a result of massive engagement on trading activities.

**Table1a: Percentage distribution of farmers according to socio-economic characteristics.**

Variables	Frequency	Percentage
<b>Sex</b>		
Male	60	100.00
Female	60	100.00
<b>Married Status</b>		
Single	30	25.00
Married	60	50.00
Widows	10	8.33
Divorce	5	4.17
Separated	15	12.50
<b>Age</b>		
21-30	18	15.00
31-40	70	58.33
41-50	15	12.50
51-60	17	14.17
<b>Household Size</b>		
1-2	65	54.17
3-4	35	29.17
5-6	9	7.50
7 above	11	9.17
<b>Farm Size for Sweet-potato</b>		
0.005ha	37	30.83
0.05-0.5ha	80	66.67
0.6ha and above	3	2.50
<b>Occupation</b>		
Full time farming	20	16.67
Trading	93	77.50
Civil servant	7	5.83
<b>Source of farm land</b>		
Inherited	95	79.17
Rented	10	8.33
Purchase	15	12.50
<b>Source of Labour</b>		
Family	98	81.67
Hired	22	18.33
<b>Source of Agro-input</b>		
Input dealers	10	8.33
Fellow farmers	60	50.00
AADP	10	8.33
NRCRI	40	33.33

Source: Field survey, 2016

Table1b indicates that majority (70%) of the farmer completed primary school while 16.67% of the farmers complete secondary school. Increased number of educated people among farmers could as well increase the opportunity of adopting new improved sweetpotato varieties. The mean year of farming experience was 11years. This show that sweetpotato farmer had long farming experience.

About 93.33% of the farmers have access to credit while 91.67% of the farmers didn't have access to extension service. This could have been the reasons the majority of the farmers were into trading. The average amount spent on sweetpotato Production and market was 3,000 while the average income from sweet-potato was N5,200 respectively,

**Table1b: Percentage distribution of farmers according to socioeconomic characteristics.**

Variables	Frequency	percentage	mean
<b>Education level</b>			
Non formal education	4	3.33	
Primary Sch. completed	84	70.00	
Secondary Sch. completed	20	16.67	
OND/NCE	10	8.33	
B.Sc/HND	2	1.67	
<b>Farming experience (years)</b>			
1-10yrs	90	75.00	
11-20yrs	20	16.67	
21 and above	10	8.33	
<b>Access to credit</b>			
Yes	8	6.67	
No	112	93.33	
<b>Expense on Sweet-potato production and marketing</b>			
1500-2000	73	60.83	
2,500-3,000	10	8.33	
3,500-4,000	14	11.67	3000
4,500 and above	11	9.17	
<b>Estimate Income</b>			
2,500-3,000	15	12.50	
3,500-4,000	21	17.50	
4,500-5,000	71	59.17	5,200
5,500-6,000	13	10.83	
<b>Access to extension service</b>			
Yes	10	8.3	
No	110	91.67	

Source: Field survey, 2016

**Table2** shows that 66.67% of the farmers were involved in land clearing while 70% of males were also involved in Ridge making. This is in conformity with Olagunju, Fakoyede, Babatunde and Ogunwolo-Olapade [8] who said that male dominated the activities of land clearing and ridge making in gender analysis of sweetpotato production in Ogun State, Nigeria. About 83.33%,

86.67%, 60% and 91.67% of female were actively involved in planting of sweet-potato weeding, harvesting and marketing of sweet potato production in the study area). This finding is in line with Taye, Ojeniyi, and Abu[5]who said that females were actively involved in planting, weeding, harvesting and marketing of sweet potato production in their study.

**Table2:** Gender distribution of respondents according to sweetpotato production and marketing.

Variables	Male		Female	
	Frequency	Percentage	Frequency	percentage
Activities				
Land clearing	40	66.67	20	33.33
Ridge making	42	70.00	30	50.00
Planting of potato.	10	16.67	50	83.33
Weeding	15	25.00	52	86.67
Harvesting	11	18.33	36	60.00
Marketing	25	41.67	55	91.67

Source: Field work, 2016.

**Table3** Indicates the constraints faced by farmers as either very serious, serious and not serious. Bad road net work with a weighted mean score 2.75, poor marketing structure with a weighted mean score 2.44, time of planting with a weighted mean score 2.30, disease/pest infestation with a weighted

mean score 2.63, cost of transport 2.27 and lack of access to extension service with a weighted mean score 2.41 were perceived by farmers as very serious constraints working against sweet potato production and marketing in the study area.

**Table3: Distribution of respondent according to constraints faced in sweet potato production and marketing.**

Variables	Mean	SD
Bad road network	2.75	0.53
Poor marketing structure	2.44	0.73
High cost of inputs	1.47	0.71
Lack of access to credit	1.38	0.64
Time of planting	2.30	0.74
Poor soil fertility	1.37	0.64
Low output of the crop	1.30	0.52
Disease/pest infestation	2.63	0.69
Weed infestation	1.24	0.52
Lack of access to ext services	2.41	0.76
Cost of transport	2.27	0.83

Source: field survey, 2016.

### Conclusion and Recommendations:

The study shows that there is gender difference in the output of male and female sweetpotato farmers in the study area. Female produced more output than their male counterparts and this shows that female took sweetpotato farming more serious than their male partners. Women were found to be more technically efficient than their male counterparts and this could be as a result of their engagement to sweetpotato production. Males were more involved in sweetpotato farming activities such as land clearing, land preparation and making ridges while

females were more actively involved in sweetpotato farming activities such as planting, weeding, harvesting and marketing. Bad road network with a weighted mean score 2.75, high cost of input with a weighted mean score 2.47, poor marketing structure with a weighted mean score 2.44, lack of extension services with a weighted mean score 2.41, time of planting with a weighted mean score 2.30, cost of transport with a weighted mean score 2.27 and disease/pest infestation with a weighted mean score 2.63 were

perceived as the major constraints facing sweetpotato farmers in the study area.

In the light of the above, it is therefore, recommended that government should rehabilitate all the road network leading to farming activities in order to be assessable by the farmers. There should be more investments in sweetpotato farming since it serves as self employment especially for women and this will help government to fight against gender imbalance and shortage of employment. There is need to enhance the quality of life of women sweetpotato farmers and meet the extension service needs of women farmers in sweetpotato production. Sweetpotato farmers should be encouraged by the extension agents to be using crop resistant varieties as to ameliorate pest/disease infestation. Farmers should be advised to change their time of planting and use the recommended planting date by research developers in order to reduce the problems encountered as a result of late planting. Government should create a good market outlet for rural people and also make fuel price affordable to motorists in order to arrest the transportation cost encounter by sweetpotato farmers in the study area. The role of women in agriculture should be straightened and encouraged in order to help our economies relapse to their normalcy. More extension workers should be posted to rural areas as to get more farmers more acquainted with the innovations as well as the latest farming practices available at their usage.

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